

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.15**SOURCE INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** SIR-001280**Date Inspected:** 24-Aug-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**Location:** Changxing Dao, Shanghai**Quality Control Contact:** William (Bill) Oak**Quality Control Present:** Yes No**Material transfer:** Yes No N/A**Sampled Items:** Yes No N/A**Stock Transfer:** Yes No N/A**OK to Cut:** Yes No N/A**Rebar Test Witness:** Yes No N/A**Delayed/Cancelled:** Yes No N/A**Other:** Coatings Inspection**Bridge No:** 34-0006**Component:** OBG 4BW, Lift 3East, Lift 4 West, Miscellaneous**Bid Item:** 77, 78, 79**Lot No:** B265**Summary of Items Observed:**

On this date Caltrans Office of Structural Materials (OSM) Quality Assurance (QA) NACE III coating inspector, Mr. James Lumley arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island in Shanghai, China. The purpose of the coating inspections are to monitor the surface preparation and coating applications for the SAS Bay Bridge project. This QA NACE III coating inspector observed the following:

Office

Organize and attend to project documentation and files.

OBG 4BW

MEK, Pencil Hardness testing requested by ZPMC on bottom section repair area adjacent to FL-3 Beam, upon Caltrans QA arrival ZPMC QC Won Wei cancelled the inspection stating they were not ready.

Lift 3 East

ZPMC personnel resumed sanding external surfaces coated with Interfine 979 and cleaning in preparation of application of additional coat of Interfine 979. Surfaces were dirty and covered in dust and residue from sanding operations. Surface preparation incomplete.

Cross Beam #3

Joint Final Inspection performed with Caltrans QA Lumley and ABF QA Bill Oak. Access was limited to climbing the vertical sides of the Cross beam via the horizontal stiffeners to view coated surfaces of the interior upper portions, dry spray required removal and some minor touch up of the insides of the weld relief holes was performed concurrent with inspection via application of Interzinc 52. Top external was not viewed as it was covered with tarp material, and splice plates affixed for transport temporary bolts were rusted. This inspection took place aboard the transport ship. Cross beam determined to be ready for shipment.

Lift 4 East

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ZPMC personnel were in process of performing repairs with Interzinc 52 and Interzinc 22. Abrasive blasting was taking place via small suction gun blaster for areas requiring Interzinc 22. No Notice of Inspection submitted for any repairs to internal or external surfaces since transport to ship have been submitted from ZPMC, other than for "Final Inspection". Visible rust was pointed out by Caltrans QA Lumley beneath affixed splice plate on floor "T" stiffener as well as Side Plate "T" stiffener, these were abrasive blasted and Interzinc 22 applied to amend. Upon arrival at the ship, an individual working aboard ship stated the vessel would be leaving the dock and anchoring offshore and access would not be available for a period of time.

Lift 3 East

Inspection requested on external top-coated surfaces, the bottom plate exhibited a uniform "Orange Peel" appearance in addition to "Pinholes" and minor "Fisheyes". Observation of in process spray application of Interfine 979 on East Side plate applicators were too far from the surfaces receiving the coating, limited use of Wet Film Thickness Gages (WFT) and applicators also never released the spray gun triggers at the end of each spray pass. ABF Bill Oak directed International Protective Coatings Technical service representative Mr. Peng Zili to inform applicators of proper spray technique and to release spray gun after each spray pass. An attempt was made to correct this issue to no avail, ZPMC QC personnel did nothing other than view improper technique. Caltrans QA Lumley video-taped this activity during the painting process.

Lift 4 East

Notice of inspection for Internal surfaces and verification of work was received, however no inspection was performed as Caltrans QA Lumley and ABF QA Bill Oak could not locate the ship which the Lift was upon earlier today. Vessel was no longer at the dock.

OBG 6BE

Re-blasting and repairs to areas discovered by Caltrans QA Lumley which exhibited low Dry Film Thickness (DFT) and re-application of Interzinc 22 to amend repair works. Caltrans QA Lumley informed ZPMC QC Don Yao Fei that DFT readings should be taken after removal of dry-spray and as soon as possible after initial application to expedite painting process.

Lift 3 East

ZPMC requested surface cleanliness inspection for application of Top coat of Interfine 979 to commence on FL-3 beams. Caltrans QA Lumley ascended scaffolding and discovered dirt and dust and sanding residues on surfaces and rejected the surface preparation. ZPMC took immediate action and re-cleaned the affected areas to an acceptable condition and application commenced. Note: applicators continued to use poor spray technique when spraying as was observed on the East Side Plate earlier.

Lift 4 West

Previously coated and damaged surfaces of FL-2 Floor beams and weld repair area were abrasive blasted to an SSPC SP-10 condition and coating application was delayed due to high surface temperature. Location of work was upper floor beam area at Panel Points 24, 25, 26, & 27 ALSO THE Upper Corner Unit at panel point # 26 & 27 were blasted and rejected and re-blasted as well during this inspection. Caltrans QA Lumley contacted Mark Miller via phone to ascertain if all or any NDT was completed in these areas to which none had been done. Note: All inspections were performed jointly with ABF & ZPMC QA/QC representatives and Caltrans QA Lumley when achievable. International Protective Coatings technical service representative were available for inspections and consultation.

Summary of Conversations:

Caltrans QA Lumley inquired with ABF QA Bill Oak regarding poor spray technique of ZPMC applicators. Mr. Oak took action to amend situation while ZPMC QC merely observed, Mr. Oak directed ZPMC QC to correct sprayers and monitor WFT.

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Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang,(858) 699-9549, who represents the Office of Structural Materials for your project.

Inspected By:	Lumley,James	Quality Assurance Inspector
Reviewed By:	Carreon,Albert	QA Reviewer
